

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

NGUYEN *et al.*

Appl. No.: To Be Assigned

(Continuation of Appl. No. 10/307,293;

Filed: December 2, 2002

Filed: April 12, 2004

For: **Variable Transconductance  
Variable Gain Amplifier Utilizing A  
Degenerated Differential Pair**

Confirmation No.: To Be Assigned

Art Unit: To Be Assigned

Examiner: To Be Assigned

Atty. Docket: 1875.1030004

**Information Disclosure Statement**

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

Sir:

Listed on accompanying Form PTO-1449 are documents that may be considered material to the examination of this application, in compliance with the duty of disclosure requirements of 37 C.F.R. §§ 1.56, 1.97 and 1.98.

Where the publication date of a listed document does not provide a month of publication, the year of publication of the listed document is sufficiently earlier than the effective U.S. filing date and any foreign priority date so that the month of publication is not in issue. Applicants have listed publication dates on the attached PTO-1449 based on information presently available to the undersigned. However, the listed publication dates should not be construed as an admission that the information was actually published on the date indicated.

Applicants reserve the right to establish the patentability of the claimed invention over any of the information provided herewith, and/or to prove that this information may

not be prior art, and/or to prove that this information may not be enabling for the teachings purportedly offered.

This statement should not be construed as a representation that a search has been made, or that information more material to the examination of the present patent application does not exist. The Examiner is specifically requested not to rely solely on the material submitted herewith.

Applicants have checked the appropriate boxes below.

- ☐ 1. Statement under 37 C.F.R. 1.704(d). Each item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart application and this communication was not received by any individual designated in 37 C.F.R. § 1.56(c) more than thirty days prior to the filing of this information disclosure statement.
- ☒ 2. Filing under 37 C.F.R. § 1.97(b). **This Information Disclosure Statement is being filed within three months of the date of filing of a national application other than a continued prosecution application (CPA), OR within three months of the date of entry of the national stage as set forth in 37 C.F.R. § 1.491 in an international application, OR before the mailing date of a first Office Action on the merits OR before the mailing of a first Office Action after the filing of a request for continued examination under 37 C.F.R. § 1.114. No statement or fee is required.**

- ☐ 3. Filing under 37 C.F.R. § 1.97(c). This Information Disclosure Statement is being filed more than three months after the U.S. filing date AND after the mailing date of the first Office Action on the merits, but before the mailing date of a Final Rejection, or Notice of Allowance, or an action that otherwise closes prosecution in the application.
- ☐ a. Statement under 37 C.F.R. § 1.97(e)(1). I hereby state that each item of information contained in this Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement. 37 C.F.R. § 1.97(e)(1).
- ☐ b. Statement under 37 C.F.R. § 1.97(e)(2). I hereby state that no item of information in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application and, to my knowledge after making reasonable inquiry, was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this Information Disclosure Statement. 37 C.F.R. § 1.97(e)(2).
- ☐ c. Attached is our PTO-2038 Credit Card Payment Form in the amount of \$\_\_\_\_\_ in payment of the fee under 37 C.F.R. § 1.17(p).
- ☐ 4. Filing under 37 C.F.R. § 1.97(d) This Information Disclosure Statement is being filed more than three months after the U.S. filing date and after the mailing date of a Final Rejection or Notice of Allowance, but before payment of the Issue Fee.

Enclosed find our PTO-2038 Credit Card Payment Form in the amount of \$\_\_\_\_\_ in payment of the fee under 37 C.F.R. § 1.17(p); in addition:

- ☐ a. Statement under 37 C.F.R. § 1.97(e)(1). I hereby state that each item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement. 37 C.F.R. § 1.97(e)(1).
- ☐ b. Statement under 37 C.F.R. § 1.97(e)(2). I hereby state that no item of information in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application and, to my knowledge after making reasonable inquiry, was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this Information Disclosure Statement. 37 C.F.R. § 1.97(e)(2).
- ☐ 5. The document(s) was/were cited in a search report by a foreign patent office in a counterpart foreign application. Submission of an English language version of the search report that indicates the degree of relevance found by the foreign office is provided in satisfaction of the requirement for a concise explanation of relevance. 1138 OG 37, 38.
- ☐ 6. A concise explanation of the relevance of the non-English language document(s) appears below:

- ☐ 7. Copies of the documents are submitted herewith.
- ☒ 8. Copies of the documents were cited by or submitted to the Office in an IDS that complies with 37 C.F.R. § 1.98(a)-(c) in Application No.10/307,293, filed December 2, 2002, which is relied upon for an earlier filing date under 35 U.S.C. § 120. Thus, copies of these documents are not attached. 37 C.F.R. § 1.98(d).
- ☐ 9. No copies of U.S. patents and patent application publications cited on the attached Form PTO-1449 are submitted in accordance with 1276 OG 55 because this application was filed after June 30, 2003.
- ☐ 10. It is expected that the examiner will review the prosecution and cited art in the parent application no(s). \_\_\_\_\_ in accordance with MPEP 2001.06(b), and indicate in the next communication from the office that the art cited in the earlier prosecution history has been reviewed in connection with the present application.

It is respectfully requested that the Examiner initial and return a copy of the enclosed PTO-1449, and indicate in the official file wrapper of this patent application that the documents have been considered.

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.



Robert Sokohl  
Attorney for Applicants  
Registration No. 36,013

Date: 4/14/04

1100 New York Avenue, N.W.  
Washington, D.C. 20005-3934  
(202) 371-2600

FORM PTO-1449

INFORMATION DISCLOSURE STATEMENTATTY. DOCKET NO.  
1875.1030004APPLICATION NO.  
*To Be Assigned*FIRST NAMED INVENTOR  
NGUYEN et al.FILING DATE  
April 13, 2004ART UNIT  
*To Be Assigned***U.S. PATENT DOCUMENTS**

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA1	3,641,450	02/08/1972	Lunn			
	AB1	5,625,307	04/29/1997	Scheinerg			
	AC1	5,668,502	09/16/1997	Rijns			
	AD1	5,828,265	10/27/1998	Mensink et al.			
	AE1	4,211,975	07/1980	Kuroda			
	AF1	5,077,541	12/1991	Gilbert			
	AG1	5,581,213	12/1996	Linder et al.			
	AH1	5,715,012	02/1998	Patel et al.			
	AI1	5,737,035	04/1998	Rotzoll			
	AJ1	3,564,439	02/16/1971	Rao			
	AK1	6,509,796	01/21/2003	Nguyen et al.			

**FOREIGN PATENT DOCUMENTS**

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL1	0 587 965 A1	03/23/1994	EP			Yes No
	AM1						Yes No
	AN1						Yes No
	AO1						Yes No
	AP1						Yes No

**OTHER (Including Author, Title, Date, Pertinent Pages, etc.)**

	AR	<u>1</u>	Furth et al., "Linearised Differential Transducers In Subthreshold CMOS", Electronics Letters, IEEE Stevenage, GB, Vol. 31, No. 7, 30 March 1995, pp. 545-547.
	AS	<u>1</u>	Copy of International Search Report for International Appl. No. PCT/US01/04451, filed February 8, 2001.
	AT	<u>1</u>	Mensink et al., "A CMOS "Soft-Switched" Transconductor and Its Application In Gain Control And Filters", IEEE Journal of Solid-State Circuits, Vol. 32, No. 7, July 1997.

EXAMINER

DATE CONSIDERED

**EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

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EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA2						
	AB2						
	AC2						
	AD2						
	AE2						
	AF2						
	AG2						
	AH2						
	AI2						
	AJ2						
	AK2						

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EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL2						Yes No
	AM2						Yes No
	AN2						Yes No
	AO2						Yes No
	AP2						Yes No

**OTHER (Including Author, Title, Date, Pertinent Pages, etc.)**

AR	2	Gilbert, B., "A Low-Noise Wideband Variable-Gain Amplifier Using An Interpolated Ladder Attenuator", IEEE International Solid-State Circuits Conference, U.S. New York, No. 34, February 1991, pp. 280-281 and p. 330.
AS	2	Leung L., et al., "10-MHz 60-dB Dynamic-Range 6-dB Variable Gain Amplifier", IEEE, 1997, pp. 173-176.
AT	2	Poole, S. et al., "A CMOS Subscriber Line Audio Processing Circuit Including Adaptive Balance", IEEE International Symposium On Circuits And Systems, Finland, Espoo, Vol. 2 of 3, June 7-9, 1988, pp. 1931-1934

EXAMINER

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	AA3						
	AB3						
	AC3						
	AD3						
	AE3						
	AF3						
	AG3						
	AH3						
	AI3						
	AJ3						
	AK3						

**FOREIGN PATENT DOCUMENTS**

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL2						Yes No
	AM2						Yes No
	AN2						Yes No
	AO2						Yes No
	AP2						Yes No

**OTHER (Including Author, Title, Date, Pertinent Pages, etc.)**

AR	3	Shin et al., "An Inductorless 900 MHz RF Low-Noise Amplifier In 0.9um CMOS", IEEE 1997 Custom Integrated Circuits Conference, May 5-8 1997, pp. 513-516.
AS	3	Tham et al., " A Direct-Conversion Transceiver Chip Set For 900MHz (ISM BAND) Spread-Spectrum Digital Cordless Telephone", 1996 IEEE International Symposium On Circuits And Systems, Vol. 4, May 12-15, 1996, pp 85-88.
AT	3	

EXAMINER

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